UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/676,924	10/02/2000	Shy Cohen	204863	3782

23460 7590 02/23/2005

LEYDIG VOIT & MAYER, LTD
TWO PRUDENTIAL PLAZA, SUITE 4900
180 NORTH STETSON AVENUE
CHICAGO, IL 60601-6780

EXAMINER	
NGUYEN, HAI V	

ART UNIT	PAPER NUMBER
2142	

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/676,924	COHEN, SHY	
	Examiner	Art Unit	
	Hai V. Nguyen	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 October 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the communication received on 18 October 2004.

2. Claims 1-23 are presented for examination.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-12, 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Susai** et al. U.S patent # **6,752,272 B1** in view of **Zhu** et al. U.S patent # **6,789,119 B1.**

5. As to claim 1, Susai, Apparatus, Method And Computer Program Product For Guaranteed Content Delivery Incorporating Putting A client On-Hold Based On Response Time, discloses the method comprising:

establishing a first communication channel between the first processor *(Fig. 8, Client 700)* and the second processor *(Fig. 8, On-Hole Server 204)* through the proxy server *(Fig. 8, Interface Unit 202)* to allow the transfer of first messages from the first processor to the second processor, and the delivery of first message delivery acknowledgments *(Fig. 8, line 808-810A)* from the second processor to the first processor *(Fig. 8, col. 11, lines1- 40)*; and however, Susai does not explicitly disclose establishing a second communication channel between the first processor and the

second processor through the proxy server to allow the transfer of second messages from the second processor to the first processor, and the delivery of second message delivery acknowledgments from the first processor to the second processor. Thus, the artisan would have been motivated to look to the related networking art for potential methods and apparatus for implementing establishing a second communication channel between the first processor and the second processor through the proxy server to allow the transfer of second messages from the second processor to the first processor, and the delivery of second message delivery acknowledgments from the first processor to the second processor.

In the same field of endeavor, Zhu, related Emulating A Persistent Connection Using HTTP, in an analogous art networked connection establishment, discloses that in claim 4 that *the client is further configured to establish a second connection with the HTTP server and send an empty GET that is marked as an empty packet to the HTTP server, the empty GET being a an HTTP request method, if the HTTP server receives the empty GET from the client prior to receiving the second data from the application server, then the HTTP server is configured to immediately forward the second data, upon receipt of the second data, to the client and closes the second connection between the client and the HTTP server,... in response to the empty GET (Zhu, Fig. 4-5, col. 4, lines 1-33; claims 4, 11).*

Accordingly, it would have been obvious to one of ordinary skill in the networked data control art at the time the invention was made to have incorporated Zhu's teachings with the teachings of Susai, for the purpose of *establishing or maintaining a persistent and*

stable connections and achieving high performance (Zhu, col. 1, lines 7-9; col. 3, lines 18-21).

6. As to claim 2, Susai-Zhu discloses, wherein the establishing of a first communication channel comprises transmitting a first HTTP-based "request" to the second processor via the proxy server, the first "request" including at least one of the first messages therein *(Susai, Fig. 8, line 804).*

7. As to claim 3, Susai-Zhu discloses, wherein the establishing of a second communication channel comprises transmitting a second HTTP-based "request" to the second processor via the proxy server to be parked at the second processor, the second "request" establishing a persistent HTTP connection between the first processor and the second processor through the proxy server *(Zhu, col. 3, lines 11-18; col. 4, lines 1-48).*

8. As to claim 4, Susai-Zhu discloses, further comprising receiving an HTTP-based "reply" from the second processor on the second communication channel, the HTTP based "reply" including at least one of the second messages therein *(Zhu, Figs. 4-5; col. 3, lines 11-18; col. 4, lines 1-48).*

9. As to claim 5, Susai-Zhu discloses, transmitting a third HTTP based "request" to the second processor via the proxy server in response to receiving the HTTP-based "reply", the third HTTP-based "request" containing an acknowledgment for the HTTP-based "reply" and further establishing a persistent HTTP connection between the first processor and the second processor through the proxy server *(Zhu, Figs. 4-5; col. 3, lines 11-18; col. 4, lines 1-48).*

10. As to claim 6, Susai-Zhu discloses, wherein the first processor only receives an HTTP based "reply" from the second processor on the second communication channel when the second processor has at least one of the second messages to send to the first processor *(Zhu, client A only receives screen update response from the application server when the application server has the response message to sent to the client, Figs. 4-5; col. 3, lines 11-18; col. 4, lines 1-48)*.

11. As to claim 7, Susai-Zhu discloses, wherein the second HTTP-based "request" includes therein a request that the second processor transmit a reply after the expiration of a time period even if there are no second messages so that the first processor can assess a status of the connection thereto *(Zhu, Figs. 4-5; col. 2, lines 25-60; col. 3, lines 11-18; col. 4, lines 1-48)*.

12. As to claim 8, Susai-Zhu discloses, setting the time period to be less than two days *(Zhu, Figs. 4-5; 30 seconds, col. 2, lines 25-60; col. 3, lines 11-18; col. 4, lines 1-48)*.

13. As to claim 9, Susai-Zhu discloses, setting the time period to be approximately five minutes *(Zhu, time period which is a pre-determined amount of time is configured by the HTTP server, instead 30 seconds, it can be 5 minutes; Figs. 4-5; col. 2, lines 25-60; col. 3, lines 11-18; col. 4, lines 1-48)*.

14. As to claim 10, Susai-Zhu discloses, comprising dynamically adjusting the time period based upon a connection time out closure controlled by the proxy server *(Zhu, HTTP server) (Zhu, Figs. 4-5; claim 2)*.

15. As to claim 11, Susai-Zhu discloses, wherein the dynamically adjusting of the time period comprises: receiving a connection time out closure message from the proxy server; determining a first time between transmitting the second HTTP-based "request" and receiving a connection time out closure message from the proxy server; and calculating a new time period to be less than the first time and less than the time period *(Zhu, time period which is a pre-determined amount of time is configured by the HTTP server, instead 30 seconds, it can be 5 minutes; Figs. 4-5; col. 2, lines 25-60; col. 3, lines 11-22; col. 4, lines 1-48)*.

16. Claim 12 corresponds to the computer readable medium claim of claim 1; therefore it rejected under the same rationale as claim 1.

17. As to claim 20, Susai-Zhu discloses a method of transmitting unsolicited messages via a public computer network to a client residing on a private computer network, the private computer network including a proxy server, the method comprising: receiving an HTTP-based request originating from the client through the proxy server *(Susai, Fig. 8, lines 804-806)*; and

parking the HTTP-based request without responding thereto unless a message is generated that needs to be transmitted to the client *(Zhu, Figs. 4-5; col. 2, lines 25-60; col. 3, lines 11-22; col. 4, lines 1-48; claim 11)*; and

When the message is generated, generating an HTTP-based reply to the HTTP-based request parked for the client, the HTTP-based reply containing the message therein *(Zhu, Figs. 4-5; col. 2, lines 25-60; col. 3, lines 11-22; col. 4, lines 1-48; claim 11)*; and

Transmitting the HTTP-based reply *(Zhu, Figs. 4-5; col. 2, lines 25-60; col. 3, lines 11-22; col. 4, lines 1-48; claim 11).*

18. As to claim 21, Susai-Zhu discloses, receiving a second HTTP-based request containing a message acknowledgement from the client through the proxy server; parking the second HTTP-based request *(Zhu, Figs. 4-5; col. 2, lines 25-60; col. 3, lines 11-22; col. 4, lines 1-48; claim 11).*

19. As to claim 22, Susai-Zhu discloses wherein the HTTP-based request includes connection time out period information, and the step of parking the HTTP-based request further comprises: when the connection time out period expires, generating an HTTP-based reply to the HTTP-based request parked for the client, and transmitting the HTTP-based reply *(Zhu, Figs. 4-5; col. 2, lines 25-60; col. 3, lines 11-22; col. 4, lines 1-48; claim 11)*

20. Claim 23 corresponds to the computer readable medium claim of claim 20; therefore it rejected under the same rationale as claim 20.

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

22. Claims 13-19 rejected under 35 U.S.C. 103(a) as being unpatentable over **Coan** et al. U.S patent # **6,584,321 B1** in view of **Zhu** et al. U.S patent # **6,789,119 B1**.

23. As to claim 13, Coan discloses the server transmitting the unsolicited messages over the public computer network (*Coan, the WAP WSPS describes a confirmed push mechanism that can be used to send unsolicited information from the server to a wireless device within an active session in a confirmed manner (Coan, col. 2, lines 9-13; col. 4, lines 12-30)*); however, Coan does not explicitly disclose transmitting an HTTP-based request to the server via the proxy server to open a persistent connection therewith, the HTTP-based request requesting a reply from the server only when the server has messages to send to the client. Thus, the artisan would have been motivated to look into the related networking art for potential methods and apparatus for implementing transmitting an HTTP-based request to the server via the proxy server to open a persistent connection therewith, the HTTP-based request requesting a reply from the server only when the server has messages to send to the client.

In the same field of endeavor, Zhu, related Emulating A Persistent Connection Using HTTP, in an analogous art networked connection establishment, discloses that in column 4, lines 35-41 that *when the server is holding a packet and it has data to be sent, it will respond to this packet and send data to the client. In this way the respond time is decreased to a minimum (Zhu, col. 2, lines 25-60; col. 2, lines 11-22) and minimizing network traffic and without any delay communication (col. 2, lines 45-60).* Accordingly, it would have been obvious to one of ordinary skill in the networked data control art at the time the invention was made to have incorporated Zhu's teachings with the teachings of Coan, for the purpose of *decreasing the respond time to a minimum*

(Zhu, col. 2, lines 25-60; col. 2, lines 11-22) and minimizing network traffic and without any delay communication (col. 2, lines 45-60).

24. As to claim 14, Coan-Zhu discloses selecting a connection time out period and including the connection time out period in the HTTP-based request so that the HTTP-based request further requests a reply from the server after the expiration of the connection time out period even if there are no messages to send to the client *(Zhu, time period which is a pre-determined amount of time is configured by the HTTP server, instead 30 seconds, it can be 5 minutes; Figs. 4-5; col. 2, lines 25-60; col. 3, lines 11-22; col. 4, lines 1-48).*

25. As to claim 15, Coan-Zhu discloses, comprising dynamically adjusting the time period based upon a connection time out closure controlled by the proxy server due to the communication inactivity *(Zhu, col. 2, lines 25- 59; col. 3, lines 11-22; col. 4, lines 45-48; claim 2).*

26. As to claim 16, Coan-Zhu discloses, receiving a connection time out closure message from the proxy server; calculating a new time period from the transmitting of the HTTP-based request to the receiving of the connection time out closure message; and reducing the connection time out period to be less than the new time period and less than a current value of the connection time out period *(Zhu, time period which is a pre-determined amount of time is configured by the HTTP server; Figs. 4-5; col. 2, lines 25-60; col. 3, lines 11-22; col. 4, lines 1-48).*

27. As to claim 17, Coan-Zhu discloses, receiving a connection time out closure message from the proxy server indicating that the proxy server has closed the

persistent connection; calculating a new time period from the transmitting of the HTTP-based request to the receiving of the connection time out closure message; and transmitting an HTTP-based request to the server via the proxy server to open a persistent connection therewith, the HTTP-based request requesting a reply from the server when the server has messages to send to the client and after the expiration of the connection time out period if there are no messages to send to the client *(Zhu, time period which is a pre-determined amount of time is configured by the HTTP server, Figs. 4-5; col. 2, lines 25-60; col. 3, lines 11-22; col. 4, lines 1-48).*

28. As to claim 18, Coan-Zhu discloses, receiving a connection time out closure message from the proxy server; reducing the connection time out period to form a new connection time out period shorter in duration than the connection time out period; and transmitting an HTTP-based request to the server via the proxy server to open a persistent connection therewith, the HTTP-based request requesting a reply from the server when the server has messages to send to the client and after the expiration of the new connection time out period if there are no messages to send to the client *(Zhu, time period which is a pre-determined amount of time is configured by the HTTP server, instead 30 seconds, it can be 5 minutes; Figs. 4-5; col. 2, lines 25-60; col. 3, lines 11-22; col. 4, lines 1-48; claim 11).*

29. Claim 19 corresponds to the computer readable medium claim of claim 13; therefore it rejected under the same rationale as claim 13.

30. Further references of interest are cited on Form PTO-892, which is an attachment to this action.

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai V. Nguyen whose telephone number is 571-272-3901. The examiner can normally be reached on 6:00-3:30 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey can be reached on 571-272-3896. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hai V. Nguyen
Examiner
Art Unit 2142

HN

JACK D. HARVEY
SUPERVISORY PATENT EXAMINER